



## What Is Claimed Is:

- 1. An isolated polynucleotide which encodes an amino acid sequence as set forth in SEQ ID NO:2 or SEQ ID NO:4.
- 2. An isolated polynucleotide selected from the group consisting of:
  - a) SEQ ID NO:1;
  - b) SEQ ID NO:3;
  - c) SEQ ID NO:1, wherein T can also be U;
  - d) SEQ ID NO:3, wherein T can also be U;
  - e) nucleic sequences complementary to SEQ ID NO:1;
  - f) nucleic sequences complementary to SEQ ID NO:3;
  - g) fragments of a), c), or e) that are at least 15 bases in length and that will selectively hybridize to genomic DNA which encodes the CCR5 protein of SEQ ID NO:2; and
  - h) fragments of b), d), or f) that are at least 15 bases in length and that will selectively hybridize to genomic DNA which encodes the CCR5 protein of SEQ ID NO:4.
- The polynucleotide of claim 2, wherein the polynucleotide fragments encode a peptide selected from the group consisting of AAQWDFGNTMC (SEQ ID NO:4), RSQKEGLHYTCSSHFPYSQYQFWK (SEQ ID NO:5), and QEFFGLNNCSSSNRLD (SEQ ID NO:6).
- 4. An expression vector containing in operable linkage the polynucleotide as in claim
  1.
- 5. A host cell containing the vector of claim 4.